



STATE OF MICHIGAN

**DEPARTMENT OF TRANSPORTATION**  
LANSING

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May 31, 2006

Mr. John D. Niemela  
Director  
County Road Association of Michigan  
P.O. Box 12067  
Lansing, Michigan 48901-2067

Mr. Joseph A. Fivas  
Transportation Environmental Affairs  
Michigan Municipal League  
320 N. Washington Sq., Ste. 110  
Lansing, Michigan 48933-1288

Dear Mr. Niemela and Mr. Fivas:

Safe, Accountable, Flexible, Efficient Transportation Equity Act:  
A Legacy for Users (SAFETEA-LU):  
High Risk Rural Roads

The Michigan Department of Transportation (MDOT) is pleased to announce that we are soliciting new candidate project applications for the fiscal year 2006 High Risk Rural Road (HRRR) program. Federal funds for the HRRR Program derive from SAFETEA-LU. The 2006 budget for this program is estimated to be \$2,465,000. We are asking the County Road Association of Michigan and the Michigan Municipal League to distribute this notice to their member agencies.

SAFETEA-LU defines a HRRR as; 1) any roadway functionally classified as rural major or minor collector or a rural local road that the accident rate for fatalities and incapacitating injuries exceeds the statewide average for those functional classes of roadway, or 2) any roadway functionally classified as rural major or minor collector or a rural local road that will likely have increases in traffic volumes that are likely to create an accident rate for fatalities and incapacitating injuries that exceeds the statewide average for those functional classes of roadway.

MDOT has used the following data to determine the required statewide, average accident rate:

76,187	Total miles of roadway functionally classified as rural major or minor collector or rural local road
11,517	Total number of crashes resulting in fatalities or incapacitating injuries, located on roadway classified as described above, for the time period, 2001 – 2005
0.15	Statewide average frequency of such accidents per mile of such roadway over a 5 year time period

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This data leads to the following calculation of a crash frequency that exceeds the statewide, average accident rate, at a minimum: Within a 5 year time period, at least one crash, resulting in fatalities or incapacitating injuries, has occurred within a segment of eligible roadway no longer than 6.67 miles (1/0.15). However, in order to increase the impact of the HRRR program in 2006, its initial year, MDOT has raised the threshold accident rate for eligibility.

The 2006 eligibility requirements for roadways in the HRRR program are:

1. The roadway is functionally classified as rural major or minor collector or rural local road.
2. Within a 5 year time period, at least 2 intersection crashes, resulting in fatalities or incapacitating injuries have occurred; or 2 such serious crashes have occurred within a 5-mile long segment of such roadway.

Other requirements:

1. The proposed projects will need to be developed and obligated on or before September 4, 2006.
2. The proposed projects will need to demonstrate a direct correlation to correct an area related to the fatal or incapacitating crash. The proposed project limits must be relevant to the roadway features attributable to the crash, and are subject to approval by MDOT.

This program will be managed as follows for fiscal year 2006:

1. Due to the time constraints for fiscal year 2006, each individual project is anticipated to be relatively small in nature. The construction phase only is eligible for federal aid. Right of way, design and construction engineering are not eligible for these funds. Projects are federally funded at 90 percent, with a 10 percent local match, or funded with 100 percent federal funds for projects consisting entirely of traffic control signalization, safety, pavement marking, rail-highway crossing closure, or installation of traffic signs, traffic lights, guardrails, impact attenuators, concrete barrier end treatments, breakaway utility poles, or priority control systems.
2. Projects may be let through MDOT, or via local force account.
3. Eligible projects must meet current standards and warrants. All improvements must address the probable cause of the crash(es) in the project area. The proposed project limits must also address concerns in the area of the crash. Proposed work outside the vicinity of the crashes will be reviewed to ensure the HRRR funds are spent according to the intent of SAFETEA-LU. Possible low cost projects can be found at [www.atssa.com/galleries/default-file/LowCostLocalRoads.pdf](http://www.atssa.com/galleries/default-file/LowCostLocalRoads.pdf), and on the enclosed document.

4. All project candidates should be postmarked no later than Friday, June 30, 2006. Projects postmarked after June 30, 2006 may be considered for funding based on the strength of the submitted project and the availability of funds. Projects are reviewed and approved by committee and selected based on criteria which includes:
  - a. Crash history or potential for crashes
  - b. Accident analysis to determine the proposed projects scope
  - c. Crash concentration in the proposed projects limits
  - d. Existing condition and character of proposed work
  - e. Factors to determine the future increased traffic volume anticipated to cause crashes (if applicable)
  - f. Ability to deliver a construction package for obligation within this fiscal year
5. At a minimum, the suggested format for project consideration is an engineering report that clearly identifies the route, project termini, existing and proposed cross sections, estimated project cost and each of the criteria listed above. A map must be included with the report which clearly identifies the location of the proposed project. Pictures, graphics, preliminary plans, etc., included in your engineering report can also be used as supporting evidence and are encouraged.
6. MDOT may be able to assist in identifying eligible roadways under your jurisdiction. For additional assistance regarding this service, you may contact Dale R. Lighthizer, P.E. of MDOT's Traffic and Safety Division at (517) 373-2334.
7. If there are any social, economic and environmental impacts within the project limits, all impacts must be mitigated before federal funds can be appropriated and obligated. Project applications which have significant negative responses from the public or controversial and may require an environmental assessment will not be considered until all outstanding issues have been resolved.
8. Projects submitted for MDOT's 2007 Local Agency Safety Program may be eligible for the HRRR program. It is encouraged that eligible projects be submitted for this program if they can be developed and obligated in fiscal year 2006.

Once projects are selected, local agencies within MPO areas must coordinate with their MPO to ensure inclusion of their project in the area's TIP. Those agencies that are part of a rural task force should notify their members that they are applying for these funds. Rural task force approval is not necessary. Local Agency Programs will coordinate with MDOT Planning to ensure these projects are included in the STIP. Each application is evaluated based on the criteria listed above on a project by project basis and funding availability. If an agency submits multiple projects, a prioritized list must be submitted for consideration.

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Local Agencies are to submit eligible projects and supporting information to the following:

Mr. Jim D'Lamater, P.E., Safety Engineer  
Design Division, Local Agency Programs Unit  
425 W. Ottawa Street, P.O. Box 30050  
Lansing, Michigan 48909-7550

Depending upon funding availability and project selection, announcements will be made as soon as possible with notifications and project programming instructions sent to each of the local agencies. Our goal is to maintain a fiscally constrained program while maximizing the use of available federal funds.

In addition to the HRRR program, MDOT is developing an additional safety program for local agencies titled the Local Safety Initiative (LSI). The LSI is intended to assist local agencies identify high incident areas on their roadway system, and may have funds available for construction work on these areas. If you are interested in this program please contact Mr. Dale Lighthizer, P.E. at (517) 373-2334 for details.

If you have any questions, please feel free to contact Jim D'Lamater, P.E. at (517) 335-2224.

Sincerely,



Rudolph S. Cadena, P.E.  
Local Agency Programs Engineer  
Local Agency Programs

for Mark A. Van Port Fleet  
Engineer of Design

Enclosure

cc: Dave Morena, FHWA  
Marsha Small, MDOT  
Dale R. Lighthizer, MDOT  
Mark Van Port Fleet, MDOT  
Jim Culp, MDOT  
Chris Youngs, MDOT  
TSC Managers and Region Engineers

# Rural Safety Countermeasures

## Estimated crash reduction factors

### Intersection – related

- Close, consolidate or re-locate driveways 40%
- Add left turn lane, rural 3-leg 44%
- Add left turn lane, rural 4-leg 30%
- Add right turn lane 10% -65%  
(depending on crash type)
- Improve intersection sight distance 20%
- Advance intersection warning signs, w/street name 40%
- Advance street name signs 15%
- Larger street name signs 10%
- Increase size of warning signs 15%
- Double up warning signs (both sides of road) 31%
- Flasher on intersection warning signs 25%
- Street lighting 50% (night crashes)
- Install YIELD at uncontrolled intersection 30%
- Install 2-say STOP at uncontrolled intersection 35%
- Change 2-way STOP to 4-way STOP 70 - 84% (right angle)  
40% (all crashes)
- Overhead Flashing Stop Beacons 71% (multiple veh crashes)
- Pavement widening 3 – 5% (per foot of widening)
- Install STOP bars 15%
- ITE yellow and all-red phase at traffic signal 25% (right angle crashes)
- Upgrade signal heads from 8” to 12” 24%
- Add back plates to signal heads 32% (right angle crashes)
- Add reflectorized back plates to signal heads 40% (right angle crashes)
- Double red signal head (T-shape) 33% (right angle crashes)

### Non-intersection related

- Add left turn lane 15-48%
- Center line rumble strips 21% (crossover crashes)
- Shoulder rumble strips 45% (run-off-road crashes)
- Eliminate drop-offs, edge-rutting 50% (severe crashes)
- 4-lane to 3-lane re-striping 26%
- Increase size of warning signs 15%
- Curve warning signs 20%
- Chevron signs within a curve 35%

- Flashing beacon on warning or regulatory sign 25%
- Larger street name signs/advance street name signs 15%
- Guardrail, including crash-worthy terminal 55-75% (for fatal)  
10-50% (for severe)
- Obstacle removal, clear zone widening 25-65% (fixed objects)
- Utility pole relocation 40%
- Edge lines 8-15%
- Center lines with no passing 36-40%
- Delineators 40% (run-off-road crashes)
- Improve Super Elevation 20%
- Centerline Markings 30%